

Amendment  
Serial No. 10/810,249

Docket 5000-1-552

### REMARKS

Reconsideration of the above-identified application in view of the amendments to the claims and the following remarks is respectfully requested.

Claims 1-20 are rejected. Claim 1 is an independent claim. Claims 1-20 are pending.

Claims 16-19 stand rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In response, applicants have amended claims 16 and 17 to properly depend on dependent claim 14 and 15, respectively.

Therefore, applicants respectfully request withdrawal of this ground of rejection.

Claims 1-3, 6-8, 11-13 and 15 stand rejected under 35 USC § 103(a) as being unpatentable over the admitted prior art ("APA") in view of Nishigaki et al and Moehrmann (US 5,509,077).

Claim 1, as amended, now recites "a plurality of ONTs (Optical Network Terminals), each ONT receiving from the OLT an optical signal..., and outputting to the OLT said upstream communication signal and said broadcast and/or image selection information through the path for upstream transmitting said communication signal".

The APA discloses only a basic technique related to a broadcast and communication integration technique in the Ethernet -PON. Meanwhile, Nishigaki does not disclose broadcast and communication integration technique, and it discloses the technique of providing the broadcast signal of the channel from OLT to the ONU

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according to a user's channel selection information in the ATM-PON. Also, Moehrmann discloses the technique in the ATM-PON.

References, alone or in combination, do not disclose the technique of integrating and transmitting broadcast and communication signals in the Ethernet-PON. More particularly, references, as suggested by the examiner, do not disclose the basic technique of integrating and transmitting broadcast and communication signals in order to address the corresponding technical problem stated in the background.

As mentioned in the background, the Ethernet-PON has a structure that is difficult to selectively transmit broadcast/image data to the subscriber. That is, the problems are that the OLT has to have the EDFA, and the ONT has to have the high efficient optical receiver to enable transmission signal to all ONTs.

Accordingly, the combination of art as suggested by the examiner fails to address the core problem of the present invention.

Moreover, Nishigaki and Moehrmann apply to the ATM-PON technique, and not to the Ethernet-PON as described in the present invention, but the technique applied to the ATM-PON. Although the ATM-PON and the Ethernet PON is related to each other, the ATM-PON method is to transmit the ATM cell, wherein the subscriber (user) ID is filled in the header of the ATM cell, then the ATM cell is transmitted to the subscriber as the destination. The ATM-PON has no problem in distinguishing the signals that the subscribers want, and transmitting the distinguished signals to the subscribers. Thus, the technique to enable these process is not necessary in the ATM-PON, but are need in the Ethernet PON of the present invention.

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Therefore, combination of references, as suggested by the examiner, would not have been obvious to one of ordinary skill in the art to teach all features cited in the base claim as they teach away.


Therefore, applicants respectfully request withdrawal of this ground of rejection.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

Applicants respectfully request withdrawal of this ground of rejection.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

  
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